WAHL and O'GORMAN USSN 08/147,912 Filed: November 3, 1993 Page 2

In the Claims:

Please amend claims 25, 26, 28, 42-44 and 48 as follows:

- 25. (Amended) A method for precisely targeting integration of a nucleic acid into the genome of a mammalian host cell, said method comprising:
 - (i) [introducing a nucleotide sequence] stably integrating a first nucleic acid comprising a [first] FLP recombination target site (FRT) into the genome of said mammalian host cell, [and,]
 - (ii) [contacting] introducing into said mammalian host cell of step (i) [with a first DNA comprising a nucleotide sequence containing] a second nucleic acid comprising at least one FRT[, in the presence of] along with an FLP recombinase, wherein [said first DNA] said FLP recombinase catalyzes recombination between the integrated FRT and the FRT of said second nucleic acid, thereby precisely [targets said first FRT and integrates] targeting integration of said second nucleic acid into the genome of said mammalian host cell of step (i).
- 26. (Amended) A method for excising a [DNA] second nucleic acid that has been integrated into the genome of a mammalian host cell according to the method of Claim 25, comprising contacting the genomic DNA [from] of said mammalian host cell with an FLP recombinase, wherein said FLP recombinase catalyzes recombination of the FRT of said first nucleic acid and the FRT of said second nucleic acid, thereby excising the

WAHL and O'GORMAN USSN 08/147,912 Filed: November 3, 1993 Page 3

integrated [DNA] second nucleic acid from the genome of said mammalian host cell.

28. (Amended) A method according to Claim 25, further comprising introducing into the mammalian host cell of step (ii) [a second DNA comprising a nucleotide sequence containing an] a third nucleic acid comprising at least one FRT, [in the presence of] along with an FLP recombinase, wherein [said second DNA] said FLP recombinase catalyzes recombination between an integrated FRT with the FRT of said third nucleic acid, thereby precisely [targets one of the FRTs of said mammalian host cell and specifically integrates at said FRT in] targeting integration of said third nucleic acid into the genome of said mammalian host cell.

- 42. (Amended) A method for the site-specific integration of [DNA] a nucleic acid into the genome of a mammalian cell wherein [the genome of said mammalian cell contains] at least one FRT [within a gene of interest] is stably integrated in the genome of said mammalian cell, said method comprising:
 - [(i) contacting] introducing into said mammalian cell

 [with] a first [DNA] nucleic acid comprising [a

 nucleotide sequence containing] at least one FRT

 and at least a first partial coding sequence of a

 first gene of interest, [in the presence of] along

 with an FLP recombinase, wherein the FLP

 recombinase catalyzes recombination between the

 integrated FRT and the FRT of said first nucleic

 acid, thereby [under conditions suitable for site
 specific integration of said first DNA at an FRT

WAHL and O'GORMAN USSN 08/147,912 Filed: November 3, 1993 Page 4

in said genome of the mammalian cell] specifically integrating said first nucleic acid at the site of FRT recombination in said genome of the mammalian cell.

- 43. (Amended) A method according to Claim 42, wherein said FRT(s) [within] integrated in the genome of said mammalian cell is/are positioned within [a functional portion] the protein coding sequence of [a] said gene of interest.
- 44. (Amended) A method according to Claim 42, further comprising contacting said mammalian cell [of step (i)] with a second [DNA] nucleic acid comprising [a nucleotide sequence containing] at least one FRT and at least a second partial coding sequence of the first gene of interest or a partial coding sequence of a second gene of interest, [in the presence of] along with an FLP recombinase, wherein [said second DNA] the FLP recombinase catalyzes recombination between said integrated FRT and the FRT of said second nucleic acid, wherein said second nucleic acid specifically integrates at the site of FRT recombination [an FRT within the genome of said mammalian cell and combines] in reading frame with said first [DNA] nucleic acid, wherein the combination of said first and said second [DNAS] nucleic acids provides a functional gene.
- 48. (Amended) A method according to Claim 42, further comprising contacting said mammalian cell [of step [(i)] with a second [DNA] nucleic acid comprising [a nucleotide sequence containing] at least one FRT, [in the presence of] along with an FLP recombinase, wherein the FLP recombinase catalyzes recombination between said integrated FRT and the FRT of said